

Detailed Data Tables: Women at Risk

Table 1. People diagnosed with HIV infection by gender: Massachusetts, 2004–2006¹

Gender:	N	%
Male	1,860	72%
Female	711	28%
TOTAL	2,571	100%

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis
 Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); data as of 1/1/08

Table 2. People living with HIV/AIDS on December 31, 2007 by gender: Massachusetts

	HIV/AIDS	
Gender:	N	%
Male	12,100	71%
Female	4,877	29%
TOTAL	16,977	100%

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); data as of 1/1/08

Table 3. People diagnosed with HIV infection by Health Service Region (HSR)¹ and gender: Massachusetts, 2004–2006²

Health Service Region:	Male		Female		Total
	N	%	N	%	N
Boston HSR	637	79%	168	21%	805
Central HSR	142	63%	85	37%	227
Metro West HSR	255	73%	93	27%	348
Northeast HSR	263	65%	142	35%	405
Southeast HSR	255	75%	87	25%	342
Western HSR	236	65%	128	35%	364
Prisons ³	71	91%	7	9%	78
MA Total	1,860	72%	711	28%	2,571

¹ Reflects the Health Service Region of a person's residence at the time of report (not necessarily current residence); see Epidemiologic Profile General Appendices, Health Service Region Maps, available at

http://www.mass.gov/dph/aids/research/profile2005/app5_hrs_maps.pdf for configuration of Health Service Regions

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

³ HSRs are regions defined geographically to facilitate targeted health service planning. While prisons do not constitute an HSR, the prison population is presented separately in this analysis because of its unique service planning needs. Prisons include only persons who were diagnosed with HIV/AIDS while in a correctional facility

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); data as of 1/1/08

Table 4. People living with HIV/AIDS on December 31, 2007 by Health Service Region (HSR)¹ and gender: Massachusetts

Health Service Region	Male		Female		Total
	N	%	N	%	N
Boston HSR	4,164	76%	1,281	24%	5,445
Central HSR	943	62%	576	38%	1,519
Metro West HSR	1,563	72%	621	28%	2,184
Northeast HSR	1,660	67%	803	33%	2,463
Southeast HSR	1,669	71%	682	29%	2,351
Western HSR	1,259	62%	771	38%	2,030
Prison ²	835	86%	139	14%	974
MA Total³	12,100	71%	4,877	29%	16,977

¹ Reflects the Health Service Region of a person's residence at the time of report (not necessarily current residence); see Epidemiologic Profile General Appendices, Health Service Region Maps, available at

http://www.mass.gov/dph/aids/research/profile2005/app5_hrs_maps.pdf for configuration of Health Service Regions

² HSRs are regions defined geographically to facilitate targeted health service planning. While prisons do not constitute an HSR, the prison population is presented separately in this analysis because of its unique service planning needs. Prisons include only persons who were diagnosed with HIV/AIDS while in a correctional facility

³ MA Total includes 6 people living with HIV/AIDS for whom residence at diagnosis was unknown at time of report

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); data as of 1/1/08

Table 5. Ten cities/towns¹ in Massachusetts with the highest proportion of women among HIV infection diagnoses (HIV Dx): 2004–2006²

Rank	City/Town	Number of HIV Dx among women	Percent of Total HIV Dx
1	Waltham	16	57%
2	Chicopee	15	56%
3	Brockton	34	52%
4	Framingham	15	47%
4	Lawrence	28	47%
5	Lynn	22	45%
6	Worcester	56	43%
7	Lowell	33	41%
8	Springfield	75	38%
9	Malden	16	36%
10	Holyoke	20	35%
10	Medford	9	35%
11	Quincy	10	34%

¹ Among cities/towns with over 20 reported HIV infection diagnoses in the years 2004–2006. Note: reflects the city/town of a person's residence at the time of report (not necessarily current residence). People diagnosed while at a correctional facility are not included

² Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis
Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); data as of 1/1/08

Table 6. People diagnosed with HIV infection by gender and race/ethnicity: Massachusetts, 2004–2006¹

Race/Ethnicity:	Male		Female	
	N	%	N	%
White Non-Hispanic	892	48%	131	18%
Black Non-Hispanic	460	25%	356	50%
Hispanic	462	25%	205	29%
Asian/Pacific Islander	35	2%	9	1%
Other/Unknown	11	1%	10	1%
Total	1,860	100%	711	100%

¹ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); data as of 1/1/08

Table 7. People living with HIV/AIDS on December 31, 2007 by gender and race/ethnicity: Massachusetts

Race/Ethnicity:	Male		Female	
	N	%	N	%
White Non-Hispanic	6,247	52%	1,397	29%
Black Non-Hispanic	2,757	23%	1,988	41%
Hispanic	2,863	24%	1,391	29%
Asian/Pacific Islander	166	1%	50	1%
American Indian/Alaska Native	9	<1%	14	<1%
Not Specified	58	<1%	37	1%
Total	12,100	100%	4,877	100%
Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); data as of 1/1/08				

Table 8. Crude and age-adjusted rates of diagnosis of HIV infection per 100,000 population¹ by race/ethnicity and gender: Average annual rate 2004–2006², Massachusetts		
State total:	Crude rate per 100,000	Age-adjusted rate per 100,000
White (non-Hispanic)	6.4	6.2
Black (non-Hispanic)	80.8	81.4
Hispanic	51.9	57.5
Asian/Pacific Islander	6.0	5.7
American Indian/Alaskan Native	8.7	
Total rate	13.5	13.2
Males:	Crude rate per 100,000	Age-adjusted rate per 100,000
White (non-Hispanic) Males	11.6	11.0
Black (non-Hispanic) Males	94.5	97.9
Hispanic Males	72.7	81.3
Asian/Pacific Islander Males	9.7	8.9
American Indian/Alaskan Native Males	5.8	5.4
Total rate among males	20.3	19.4
Females:	Crude rate per 100,000	Age-adjusted rate per 100,000
White (non-Hispanic) Females	1.6	1.6
Black (non-Hispanic) Females	68.1	66.7
Hispanic Females	31.5	35.3
Asian/Pacific Islander Females	2.4	2.5
American Indian/Alaskan Native Females	11.5	10.4
Total rate among females	7.2	7.2
¹ The denominators for rate calculations are based on year 2000 population estimates from the MDPH Center for Health Information, Statistics, Research and Evaluation		
² Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis		
Data Source: MDPH HIV/AIDS Surveillance Program; data as of 1/1/08		

Table 9. Crude and age-adjusted HIV/AIDS prevalence per 100,000 population¹ on December 31, 2007 by race/ethnicity and gender: Massachusetts

State Total:	Crude rate per 100,000	Age-adjusted rate per 100,000
White (non-Hispanic)	143.5	136.0
Black (non-Hispanic)	1,409.9	1,552.6
Hispanic	992.2	1,351.8
Asian/Pacific Islander	87.9	96.8
American Indian/Alaskan Native	200.2	187.6
Total prevalence	267.4	261.7
Males:	Crude rate per 100,000	Age-adjusted rate per 100,000
White (non-Hispanic) Males	244.2	228.1
Black (non-Hispanic) Males	1,699.8	1,972.5
Hispanic Males	1,352.4	1,960.4
Asian/Pacific Islander Males	137.6	152.3
American Indian/Alaskan Native Males	157.5	150.5
Total prevalence among males	395.6	384.4
Females:	Crude rate per 100,000	Age-adjusted rate per 100,000
White (non-Hispanic) Females	50.5	48.9
Black (non-Hispanic) Females	1,140.2	1,196.1
Hispanic Females	640.9	818.4
Asian/Pacific Islander Females	40.0	43.2
American Indian/Alaskan Native Females	242.5	223.8
Total prevalence among females	148.2	146.4
¹ The denominators for prevalence calculations are based on year 2000 population estimates from the MDPH Bureau of Health Statistics, Research and Evaluation Data Source: MDPH HIV/AIDS Surveillance Program; data as of 1/1/08		

Table 10. People diagnosed with HIV infection within the years 2004–2006¹ by gender and place of birth: Massachusetts

Race/Ethnicity:	Male		Female	
	N	%	N	%
United States (US)	1,290	69%	320	45%
Puerto Rico/US Dependency ²	167	9%	75	11%
Non-US	403	22%	316	44%
Total	1,860	100%	711	100%

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

² Ninety-seven percent of people diagnosed with HIV infection from 2004–2006 who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands and 2% were born in an unknown US dependency

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); data as of 1/1/08

Table 11. People living with HIV/AIDS on December 31, 2007 by gender and place of birth: Massachusetts

Race/Ethnicity:	Male		Female	
	N	%	N	%
United States (US)	8,765	72%	2,875	59%
Puerto Rico/US Dependency ¹	1,394	12%	642	13%
Non-US	1,941	16%	1,360	28%
Total	12,100	100%	4,877	100%

¹ Ninety-six percent of people living with HIV/AIDS who were born in a US Dependency were born in Puerto Rico, <1% were born in the US Virgin Islands, and 3% were born in an unknown dependency

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); data as of 1/1/08

Table 12. Females diagnosed with HIV infection by place of birth and year of diagnosis: Massachusetts, before 1999, 1999–2006¹

	US		Puerto Rico/ US Dependency ²		Non-US		Total
	N	%	N	%	N	%	
< 1999	3,309	71%	726	16%	635	14%	4,670
1999	237	58%	53	13%	116	29%	406
2000	196	54%	37	10%	128	35%	361
2001	166	55%	34	11%	100	33%	300
2002	163	47%	36	10%	148	43%	347
2003	145	47%	40	13%	124	40%	309
2004	124	43%	41	14%	125	43%	290
2005	101	43%	21	9%	112	48%	234
2006 ³	95	51%	13	7%	79	42%	187

¹ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

² Ninety-seven percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, and 2% were born in an unknown dependency

³ 2006 data are preliminary

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/08

Table 13. People diagnosed with HIV infection by gender and exposure mode: Massachusetts, 2004–2006¹

Exposure Mode:	Male		Female	
	N	%	N	%
Male-to-Male Sex (MSM)	940	51%	N/A ²	N/A ²
Injection Drug Use (IDU)	240	13%	113	16%
MSM/IDU	49	3%	N/A ²	N/A ²
Heterosexual Sex	107	6%	171	24%
Other ³	5	<1%	13	2%
Total Undetermined	519	28%	414	58%
• Presumed Heterosexual Sex ⁴	287	15%	312	44%
• Undetermined ⁵	232	12%	102	14%
Total	1,860	100%	711	100%

¹ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis

² N/A = Not Applicable;

³ Other includes pediatric and receipt of blood/blood products

⁴ Heterosexual sex with partners with unknown risk and HIV status

⁵ Includes those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); data as of 1/1/08

Note: The category of “presumed heterosexual sex” is used in Massachusetts to re-assign people who are reported with no identified risk but who have reported heterosexual sex with a partner of unknown HIV status or risk. Massachusetts uses this category to distinguish these cases from other undetermined cases about which we know less. Nationally, the Centers for Disease Control and Prevention categorizes “presumed heterosexual sex” cases as “no identified risk” (NIR). As such, comparisons of the presumed heterosexual category cannot be made to national data. Caution should be used in interpreting data for presumed heterosexual, as it is still not clear what the exposure risk is for people in this category. Although a person may not report other risk behaviors such as injection drug use or male-to-male sex to his/her health care provider, it does not necessarily mean that he/she has not engaged in them. There are many barriers to disclosing HIV risk behaviors in the health care setting such as a limited patient-provider relationship or stigma.

Table 14. People living with HIV/AIDS on December 31, 2007 by gender and exposure mode: Massachusetts

Exposure Mode:	Male		Female	
	N	%	N	%
Male-to-male sex (MSM)	5,773	48%	N/A ¹	N/A ¹
Injection drug use (IDU)	2,906	24%	1,372	28%
MSM/IDU	539	4%	N/A ¹	N/A ¹
Total Heterosexual Sex (HTSX)	687	6%	1,594	33%
• HTSX w/ IDU	179	1%	760	16%
• HTSX w/ bisexual male	N/A	N/A	39	1%
• HTSX w/ blood/blood products ²	9	<1%	18	<1%
• HTSX w/ person w/HIV/AIDS	499	4%	777	16%
Other ³	236	2%	169	3%
Total Undetermined	1,959	16%	1,742	36%
• Presumed heterosexual sex ⁴	1,253	10%	1,390	29%
• Undetermined ⁵	706	6%	352	7%
Total	12,100	100%	4,877	100%

¹ N/A=Not Applicable² Heterosexual sex with a person who received blood/blood products³ Other includes pediatric and receipt of blood/blood products⁴ Heterosexual sex with partners with unknown risk and HIV status⁵ Includes those still being followed up for risk information, those who have died with no determined risk, those lost to follow-up, and confirmed occupational exposure

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); data as of 1/1/08

Table 15. Females diagnosed with HIV infection by race/ethnicity¹ and exposure mode: Massachusetts, 2004–2006²

Exposure Mode:	White NH ³		Black NH		Hispanic	
	N	%	N	%	N	%
IDU ⁴	52	40%	19	5%	40	20%
HTSX ⁵	27	21%	67	19%	71	35%
Other ⁶	3	2%	7	2%	3	1%
Total Undetermined	49	37%	263	74%	91	44%
Pres. HTSX ⁷	37	28%	198	56%	71	35%
Undetermined ⁸	12	9%	65	18%	20	10%
Total	131	100%	356	100%	205	100%

¹ Data for American Indian/Alaska Native, Asian/Pacific Islander and Other/Unknown race/ethnicity are not presented due to small numbers² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis³ NH = Non-Hispanic⁴ IDU = Injection Drug Use⁵ HTSX = Heterosexual Sex⁶ Other includes pediatric and receipt of blood/blood products⁷ Pres. HTSX = Presumed Heterosexual Sex, heterosexual sex with partners with unknown risk and HIV status⁸ Includes those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up
Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); data as of 1/1/08

Table 16. Females living with HIV/AIDS on December 31, 2007 by race/ethnicity¹ and exposure mode: Massachusetts

Exposure Mode:	White NH ²		Black NH		Hispanic		API ³	
	N	%	N	%	N	%	N	%
IDU ⁴	667	48%	316	16%	378	27%	3	6%
HTSX ⁵	391	28%	572	29%	595	43%	19	38%
Other ⁶	51	4%	64	3%	54	4%	3	6%
Total Undetermined	288	21%	1,036	52%	364	26%	25	50%
Pres. HTSX ⁷	218	16%	860	43%	283	20%	15	30%
Undetermined ⁸	70	5%	176	9%	81	6%	10	20%
Total	1,397	100%	1,988	100%	1,391	100%	50	100%

¹ Data for American Indian/Alaska Native, Asian/Pacific Islander and Other/Unknown race/ethnicity are not presented due to small numbers

² NH = Non-Hispanic

³ API = Asian/Pacific Islander

⁴ IDU = Injection Drug Use

⁵ HTSX = Heterosexual Sex

⁶ Other includes pediatric and receipt of blood/blood products

⁷ Pres. HTSX = Presumed Heterosexual Sex, heterosexual sex with partners with unknown risk and HIV status

⁸ Includes those still being followed up for risk information, those who have died with no determined risk and those lost to follow-up

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); data as of 1/1/08

Table 17. People diagnosed with HIV infection by gender and age at HIV diagnosis: Massachusetts, 2004–2006¹

Age (years):	Males		Females	
	N	%	N	%
Under 13	4	<1%	12	2%
13 to 19	21	1%	22	3%
20 to 24	106	6%	63	9%
25 to 29	189	10%	86	12%
30 to 34	252	14%	113	16%
35 to 39	376	20%	99	14%
40 to 44	371	20%	120	17%
45 to 49	274	15%	89	13%
50 to 54	130	7%	53	7%
55 to 59	77	4%	34	5%
60+	60	3%	20	3%
Total	1,860	100%	711	100%

¹ Reflects year of HIV diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis
Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); data as of 1/1/08

Table 18. Number of sexual partners in the past year,¹ female BRFSS respondents ages 18–64 Massachusetts, 2005–2006				
	0 Partners	1 Partner	2+ Partners	N²
Total Females	995	2,599	150	3,744
Age in Years:	0 Partners	1 Partner	2+ Partners	N
18-24	19.6%	61.9%	18.4%	230
25-34	6.7%	87.2%	6.0%	684
35-44	12.5%	85.0%	2.5%	973
45-64	29.9%	68.9%	1.2%	1,805
Race/Ethnicity:³	0 Partners	1 Partner	2+ Partners	N
White NH ⁴	17.6%	77.0%	5.4%	2,889
Black NH ⁴	24.5%	64.1%	11.4%	207
Hispanic	26.2%	69.4%	4.4%	470
Sex of Partner:⁵	0 Partners	1 Partner	2+ Partners	N
Same sex	Not Applicable	85.6%	14.4%	55
Opposite sex	Not Applicable	94.0%	6.0%	2,675
¹ "Number of sexual partners in past year" is a state-added question administered to a sub-sample of BRFSS respondents.				
² Only respondents with known values are included in this table. Column sub-totals may not equal overall total due to missing values.				
³ Data for Asian is not presented due to small numbers				
⁴ NH= Non-Hispanic				
⁵ Only asked of sexually active adults				
Data source: Massachusetts Behavioral Risk Factor Surveillance System (BRFSS), 2005–2006				

Table 19. Sexual behavior as reported among school-aged female respondents to the Youth Risk Behavior Survey: Massachusetts
Calendar Year 2005

By Behavior:	Percent of total responding yes to specified question	N ¹ (total number of respondents for each question)
Ever had sexual intercourse	42.9%	1,669
Sexual intercourse before age 13	2.2%	1,671
4 or more lifetime sexual intercourse partners	10.5%	1,670
Sexual intercourse in last 3 months	35.4%	1,637
Condom used at last intercourse ²	59.2%	542
Alcohol/drugs used at last intercourse ²	20.2%	553
Ever been, gotten someone pregnant	4.6%	1,749
Ever had sexual contact against their will	15.2%	1,744

¹ The number of respondents for each question varies because not all questions are asked of everyone taking the survey and, even when the question is asked, some survey participants do not provide an answer

² Among youth reporting sexual intercourse in the past three months

Data Source: Massachusetts Department of Education

Table 20. Percentage of Massachusetts Youth Risk Behavior Survey respondents reporting condom use at last sexual intercourse by year and gender: Massachusetts, 1993–2005¹

Year	Males		Females		Total Males + Females	
	%	Total N ²	%	Total N ²	%	Total N ²
1993	57.4%	409	46.7%	462	51.8%	872
1995	59.9%	623	52.0%	626	55.9%	1,253
1997	64.2%	517	50.4%	559	57.0%	1,079
1999	62.6%	589	52.0%	639	57.2%	1,237
2001	61.6%	553	54.9%	582	58.1%	1,139
2003	60.3%	424	57.4%	496	57.4%	922
2005	71.6%	442	59.2%	542	65.0%	986

¹ A random sample of high schools is selected for participation each year, data presented do not represent cohorts followed over time

² Total N = total number of respondents by sex. The number of respondents for each question varies because not all questions are asked of everyone taking the survey and, even when the question is asked, some survey participants do not provide an answer

Data Source: Massachusetts Department of Education

Table 21. Percentage of Massachusetts Youth Risk Behavior Survey respondents reporting sexual intercourse (ever) by year and gender: Massachusetts, 1993–2005¹

	Males		Females		Total Males + Females	
Year	%	Total N²	%	Total N²	%	Total N²
1993	51.4%	1,326	46.0%	1,435	48.7%	2,763
1995	50.3%	1,870	42.8%	1,930	46.5%	3,806
1997	46.8%	1,800	42.4%	1,858	44.7%	3,664
1999	46.4%	1,922	41.8%	2,017	44.1%	3,954
2001	46.3%	1,886	42.3%	1,892	44.3%	3,786
2003	40.8%	1,581	41.1%	1,676	41.0%	3,261
2005	47.9%	1,512	42.9%	1,669	45.4%	3,185

¹ A random sample of high schools is selected for participation each year, data presented do not represent cohorts followed over time

² Total N = total number of respondents by sex. The number of respondents for each question varies because not all questions are asked of everyone taking the survey and, even when the question is asked, some survey participants do not provide an answer

Data Source: Massachusetts Department of Education

Table 22. Total reported AIDS cases by gender and year of diagnosis: Massachusetts, 1985–2006¹

	Male		Female		
Year of diagnosis:	N	%	N	%	Total
1985	203	90%	22	10%	225
1990	885	82%	194	18%	1,079
1995	1,065	76%	341	24%	1,406
1997	696	75%	234	25%	930
1998	699	72%	269	28%	968
1999	681	73%	255	27%	936
2000	557	71%	232	29%	789
2001	487	69%	223	31%	710
2002	478	70%	207	30%	685
2003	391	67%	191	33%	582
2004	431	69%	192	31%	623
2005	423	72%	166	28%	589
2006 ¹	355	72%	138	28%	493

¹ 2006 data are preliminary

Data Source MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); data as of 1/1/08

Table 23. Deaths among persons reported with AIDS by gender and year of death: Massachusetts, 1985–2006

Year of death	Male		Female		Total
	N	%	N	%	N
1985	108	90%	12	10%	120
1990	556	88%	76	12%	632
1995	944	80%	242	20%	1,186
1997	286	74%	100	26%	386
1998	253	76%	79	24%	332
1999	267	77%	82	23%	349
2000	248	74%	89	26%	337
2001	266	72%	104	28%	370
2002	228	71%	91	29%	319
2003	233	70%	102	30%	335
2004	203	74%	72	26%	275
2005	174	70%	74	30%	248
2006	183	72%	70	28%	253

Data Source MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding); data as of 1/1/08